

### Air Force Studies and Analyses Agency Force Application Division

## Global Mobility Branch

Lt Col Bob Mongillo

# GLOBAL MOBILITY BRANCH OVERVIEW

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- FY95 STUDIES/ANALYSES
- FY96 STUDIES/ANALYSES
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# GLOBAL MOBILITY BRANCH MISSION

Conduct studies and analyses to support Air Force senior leadership, the Air Staff, and a wide range of DoD customers in the areas of:

- Strategic Airlift
- Tanker Deployment and Employment
- Intratheater Airlift
- Aircraft Loading
- Aerial Port Operations
- Combat Search and Rescue
- Operational Support Aircraft
- Special Operations Forces
- Wargaming

# GLOBAL MOBILITY BRANCH PERSONNEL

Chief, Global Mobility Branch

Lt Col Bob Mongillo

MS, Mngt Science; MS, Applied Statistics

**Airlift Analyst** 

BS, Operations Research & MBA

Maj Bob Nuanes

**Tanker Analyst** 

MS, Operations Analysis

Maj Roger Perret

**Airlift Analyst** 

MS, Operations Research

**Capt Greg Rau** 

**Airlift Systems Analyst** 

**Airlift Analyst** 

**Operations Research Analyst** 

**Operations Research Analyst** 

Vacant, GS-13

Vacant, Maj

Vacant, Lt Col

Vacant, GS-14

## GLOBAL MOBILITY BRANCH FY95 STUDIES & ANALYSES

#### C-17 & C-130 Tactical Unit Moves

- Determined the best mix of C-17 & C-130 aircraft to support 11 high-leverage Army combat tactical unit moves in theater
- Results briefed by OSD (PA&E) to C-17 DAB

#### **Combat Rescue**

- Determined the 2MRC wartime requirement for AF/XOF
- Showed the ARC/Active mix imbalance
- Programming action shifted ARC assets to Active units

### **Air Refueling Tanker Requirements**

- Determined 2MRC and SIOP+1 wartime requirement
- Briefed to Air Force Council by AF/XOFM

## GLOBAL MOBILITY BRANCH FY96 STUDIES & ANALYSES

#### **Campaign Analysis of Mobility System Changes**

- Show Air Force senior leadership the impact changes to the mobility system can have on the outcome of a war
- Using 1998-2003 DPG, show impact of force closure on the war
  - Forward delivery of Army units in near-operational configurations
  - Insufficient MOG and reduced airfield capacity
  - Degradations in air refueling capability

### **C-130 Direct Service Support**

- Part of the JCS J-4 Intratheater Lift Analysis
- Based on a 2MRC DPG, determine the C-130 wartime requirement
- Basis for AF/XOF C-130 Master Stationing Plan and POM funding

## GLOBAL MOBILITY BRANCH FY96 STUDIES & ANALYSES

#### C-130 ARC/Active Force Mix

• Determine for AF/XOF, what portion of the C-130 fleet needs to be active duty to be able to support ongoing contingencies and wartime requirements

#### **Near-Operational Loads**

• Show for OSD (PA&E) the impact of near operational loads on strategic airlift as well as on battle outcome

### C-130H, C-130J and C-130J-30 Loads Comparison

• Assist ACC/SAS evaluate the operational capabilities of each aircraft

# GLOBAL MOBILITY BRANCH ONGOING PROJECTS

#### Air Force Mobility M&S Users' Group

• Provide a forum for mobility operators, analysts and academians to review analyses, models and problem solving approaches

#### Wargaming

• Improve the play of strategic and theater airlift in wargames to show the impact of airlift shortfalls to Air Force senior leaders

#### **Airlift Loading Model (ALM)**

• Consolidate two versions of ALM and provide configuration control

#### THRUPUT/CONOPS

• Combine the best of two optimization models into tool for mobility system analyses

# GLOBAL MOBILITY BRANCH MODELS

#### **Airlift Loading Model (ALM)**

AFSAA's detailed analytical loading model for combat unit deployment by air

#### **THRUPUT**

AFSAA's detailed strategic airlift linear optimization model

#### Mobility Analysis Support System (MASS)

AMC's detailed strategic and tactical airlift stochastic simulation model

### **Combined Mating and Ranging Planning System (CMARPS)**

STRATCOM's tanker deployment and employment simulation model

### Joint Flow and Analysis System for Transportation (JFAST)

TRANSCOM's PC-based analysis tool for OPLAN deliberate planning

#### **Analysis of Mobility Platform (AMP)**

TRANSCOM's end-to-end confederation of mobility models